



OrgPublisher EChart Thin Client Implementation Guide

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Introduction

The purpose of this document is to cover the topics specifically pertaining to OrgPublisher EChart Thin Client.

Unlike OrgPublisher EChart Rich Client, Thin Client does not require an ActiveX control. This makes deploying the published thin client chart easier from a rollout perspective. Not using an ActiveX control means that the Web server that serves the published thin client chart is doing more work, and often requires more server resources.

For EChart server implementation and Web server setup, refer to the *OrgPublisher EChart Server Setup* document.

OrgPublisher Thin Client Architecture

The following diagram shows the recommended architecture for thin client publishing. Dual load balanced Web servers are shown. The OrgPublisher Web Administration server is used to access the source charts on a Web server. The data source can be either a database or a text file.

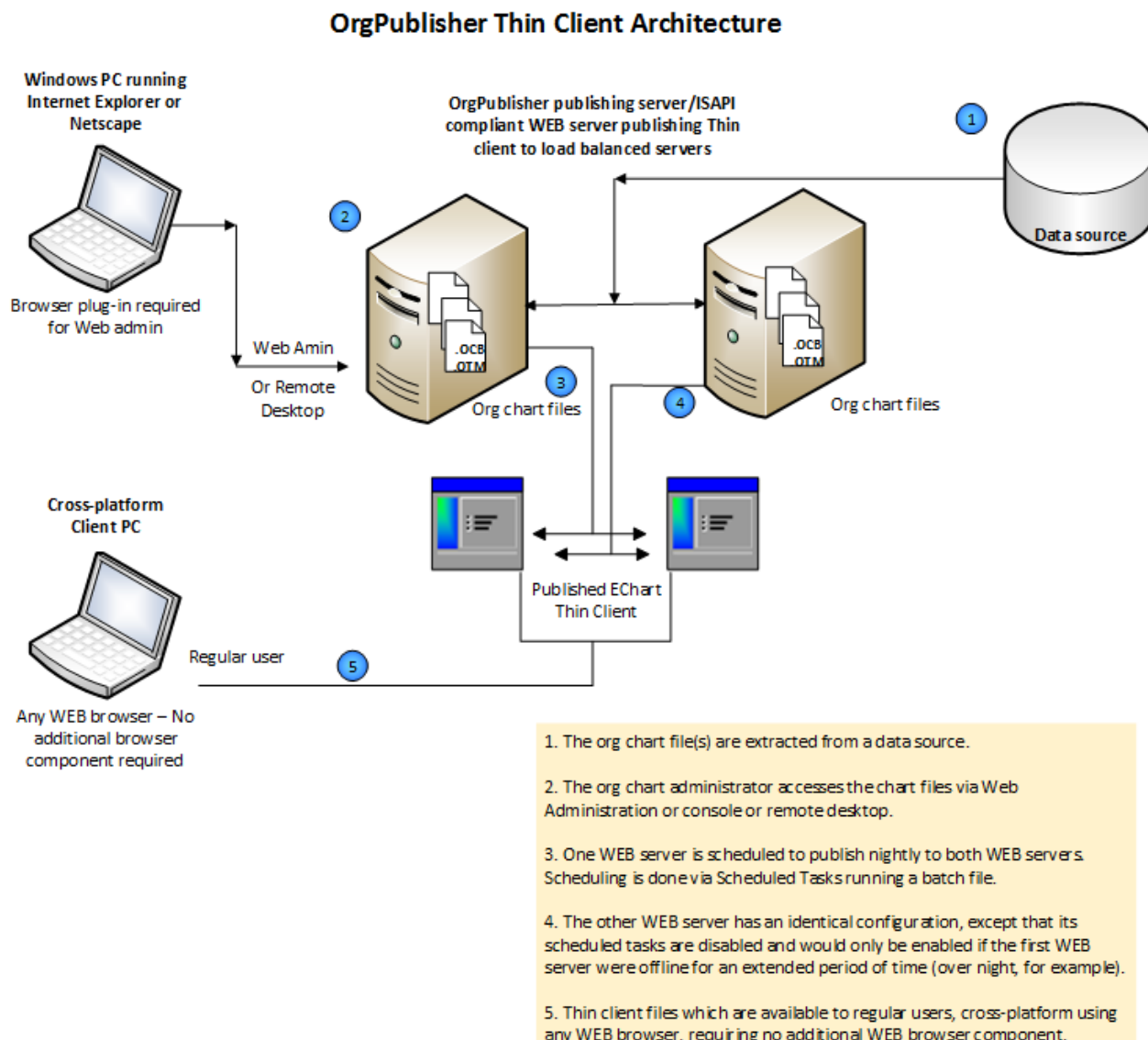


Figure 1.

EChart Thin Client Server Requirements

EChart Thin Client uses the server rather than individual user work stations to process the org chart. The EChart Thin Client server hardware requirements can vary, depending on a number of factors, such as records charted, number of custom fields, concurrent users, whether or not the servers are dedicated to only this function, and so on. Load testing in the working environment determines the final configuration.

The following table contains recommendations that can serve as a starting point for estimating hardware requirements for Thin Client.

EChart Thin Client Number of Records	Dual Load Balanced Servers Processor	GHz	Memory	Dedicated vs Shared Server Memory
Up to 1,000	i3 (or compatible)	3	2MB	3GB
1,001 to 5,000	i3 (or compatible)	3	2GB	3GB
5,001 to 15,000	i3 (or compatible)	3	2GB	3GB
15,001 to 25,000	i5 (or compatible)	3+	4GB	4GB
25,000 and up	i5 (or compatible)	3+	4GB	4GB

EChart Thin Client Org Chart Authentication

Organizational chart authentication is accomplished via the EChart Thin Client publishing option. EChart publishing offers security options at the chart and field level.

Chart security options control authentication methods. The options are:

- **Unsecured**
 - All users can view the entire chart.
- **Active Directory® authentication**
 - When a user accesses the chart, a prompt asks for the user ID and password of the logged in user.
 - The credentials are entered and the operating system is queried to determine the domain user ID of the user of that computer.
 - The formats for the User ID field are:
 - **User ID only**
 - **Domain/User ID**
 - **Domain.company.com/User ID**
 - The user is then placed in the chart at the starting point defined by the publishing definition.
 - This option requires that there be a custom field containing the Windows Domain user ID in the input data file.
- **System user ID/box Linkage**
 - The server grants access to the chart to any user ID on the user machine. **This is not a secure setting.** The chart opens at the user's box. This option requires a custom field containing the user ID of the computer.
 - This option is not secure because it uses whatever ID is logged on to the computer. It can be a local computer account, which can be created by anyone with appropriate access to the computer.
- **Chart**
 - The server prompts each user for a user ID and password in order to open the OrgPublisher EChart. The user IDs and passwords are present in the input file and selected in the *Publishing Wizard* when activating this security type.
 - This method can be used with portals for single sign-on
 - This method requires a custom field containing the value of the user ID and another custom field containing a password value. This password may be randomly generated and fed into the chart data by an external program.
- **Reverse Proxy**
 - The user ID is supplied in an HTTP header. When a user access the chart URL, a reverse proxy Web server intercepts the request and, through an

- authentication program/method, supplies the appropriate user ID as a variable in the HTTP header and then sends it to the original destination.
- The EChart uses this variable value provided in the header to perform a lookup in a specified custom field containing the user IDs.
 - An alternate option allows the variable to be passed as a cookie.

In addition to chart security options, ECharts also control the starting point in the org chart. Options are:

- **Top of chart**
- **Supervisor's box**
- **User's box**
- **Box ID** specified by a particular custom field

Finally, the **Allow users to drill up from starting box** option allows users to navigate to levels above their box in the chart. Clear the check box if you do not want users to navigate above their own chart level.

EChart Field/Role-based Security

EChart security also provides field level security, field level security allows, or disallows, users to view information based on whether or not users are members of a particular group.

For example, if you have a chart with salary information, you may want only members of the "HR" group to have access to that field. In OrgPublisher, you define a group called HR, which is based on criteria that queries the chart data and defines who should be a member of HR. When you authenticate to and view a chart, if you are a member of that group, you can see the salary field.

Note: Style level security, which control whether or not you can see certain styles, is not enabled in EChart Thin Client.

Additional information on how to use these security features can be found in the OrgPublisher application help file. Select **Help** from the OrgPublisher menu, then **User Manual**. Open the **Search** tab and type field level security and click **List Topics**. All associated topics display in the lower pane.

Configuring Automatic Microsoft Active Directory Authentication

EChart Thin Client security allows you to control authentication into the chart, as well as field level security. With thin client security, the default requires that you log in manually to access the chart, even with Active Directory authentication.

However, if you don't want this prompt, you can:

1. Verify the web server is running IIS.
2. Turn off **Anonymous Access** to the web folder so the web server knows the identity of the clients.
3. Verify that **Integrated Windows Authentication** is selected.
4. Set **IIS Application Protection** to low.

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Thin Client Security Tokens

Once you have logged in to a secure chart, a security token is generated. This token remains aware of who is logged in. It monitors chart activity and, if there is no activity for ten minutes, the token times out, causing the user to re-authenticate to the chart.

The default inactivity time-out of ten minutes can be changed through a registry entry.

To modify the default inactivity time-out, you must edit the client computer's registry. Create a **DWORD** value called **LoginExpires** in the following registry key (using **X** to designate the OrgPublisher version number):

HKEY_LOCAL_MACHINE\Software\Aquire\OrgPublisherX\ThinServer

The value is a decimal number specifying the number of inactive minutes before timing out.

Thin Client Printing

Thin Client printing is done through a PDF file which can be printed. This option publishes to a PDF document for easy emailing and printing. It requires the free Adobe® Acrobat® Reader® Version 9 to view the resulting document.

The PDF option publishes in Book Style only. Use the *Print Preview* window in OrgPublisher and click **Settings** to control appearance of the PDF file.

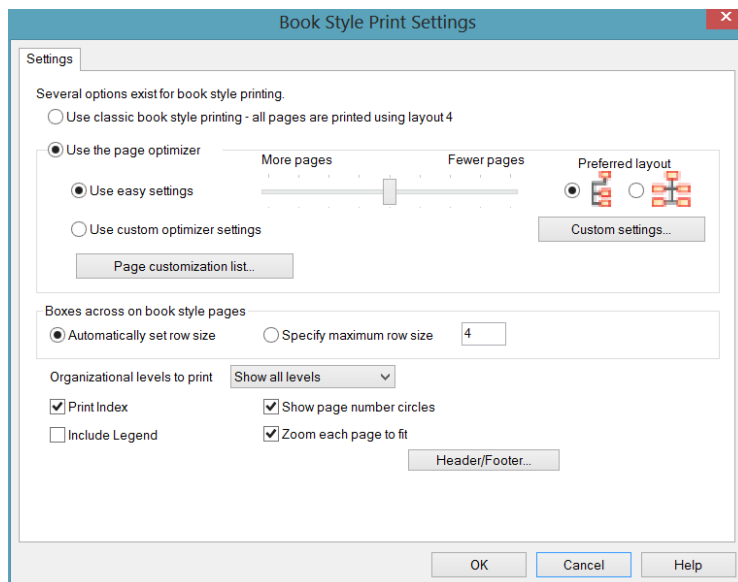


Figure 2.

Detailed information can be found in the *OrgPublisher Print and PowerPoint Guide*.

PDF Format

- By default, printing is limited to 500 records. Attempting to print more records generates a new HTML page with an error message.

The default number of records to print can be changed through a registry entry. The maximum number of records that can print is approximately 2000 records. If you set the maximum number higher, you may receive an error when trying to print. This limitation is due to the PDF driver.

To modify the default print limit, you must edit the client registry. Create a **DWORD** value called **PrintLimit** in the following key:

HKEY_LOCAL_MACHINE\Software\Aquire\OrgPublisherX\ThinServer

The value is a decimal number equal to the number of records you want to print.

- If you are publishing to an IIS server that does not have OrgPublisher installed and you want to print Thin Client, you must copy and execute the **PDFDRV.EXE** file on the Web server so that the Web server can print from Thin Client.

- A PDF “printer” must exist during the PDF publishing. If a PDF printer option does not exist, one is created temporarily prior to publishing, then deleted after publishing is completed. The process takes extra time.

If a PDF printer option already exists, the publishing to PDF occurs at normal speed.

This printer can be created permanently by using the program file, **PDFDRV.EXE**, which is installed during the OrgPublisher application installation.

- If you click the print button and nothing happens, make sure that you have **Read and execute permissions** assigned to the folder where the **pdfui250.dll** file is located.

Troubleshooting EChart Thin Client Log Files

ECharts log activity when published and accessed using EChart security.

The log file is found in the published charts folder and is the same name as the published chart file. When the Web service is restarted, the next access to the EChart creates a new log.

The previous log file is renamed to preserve past information. This can occur up to nine times, after that, each log file is cycled through the nine backup files and the tenth file is lost.

Searching Thin Client Charts

The default search field in Thin Client charts is **Last Name**. This default can be changed with a registry setting on the server. To modify the default search field, create a **DWORD** value called **DefaultSearchIndex** in the following key:

```
HKEY_LOCAL_MACHINE\Software\Aquire\OrgPublisherX\ThinServer\
```

The value is a decimal number equal to the appropriate field.

The values to use are:

AllFields = 1001

AllStandardFields = 1002

AllCustomFields = 1003

PosTypeField = 1004

StatusField = 1005

RelationshipField = 1006

GroupField = 1007

PersonIdField = 1009


To make the default search field a custom field, the value for the registry key must correlate to the field value (Any fields greater than field 19 equal 1000+ the field number. For example, if the custom field sequence number you want is 22, the registry key is 1022.).

Customizing EChart Thin Client

OrgPublisher Thin Client charts are dynamic HTML versions of org charts. You can customize the HTML pages to more closely match the look and feel of your Web site, as well as what information is displayed, by linking to your custom style sheet.

Publishing Options

You are given several options in the publishing definition:

- JavaScript must be enabled if you want to give end users the ability to close views or search numeric fields.
- You can enable or disable end users' ability to print charts as PDF.
- There are two options for publishing charts as graphics, JPEG and GIF.
 - **JPEG** provides high text quality and very high photo, gradient, and background image quality.
 - **GIF** provides very high text quality but lower photo, gradient, and background image quality.
- You can optimize the toolbar and button images by caching static images. If enabled, the **ChartImages** folder (from the **OrgPubX** folder where you installed it) must be copied to the destination Web folder.
- Because there is no input type for tree control in HTML, the *Tree View* is not available in Thin Client charts.
- The search feature is not available in its entirety in Thin Client charts. End users can access a modified *Search View* by clicking the *List View*  button in the toolbar.

For additional help publishing Thin Client charts, see the OrgPublisher application help file, or the online version of the User Manual and search for these topics:

- *Publishing in EChart Thin Client Format*
- *Choosing EChart Thin Client Settings*
- *Troubleshooting Tips for Published ECharts*

Modifying the Look and Feel of the Published Chart

Thin client technology uses a cascading style sheet called **windows.css** to control the look and feel of the thin client chart. This file is located in the **css** subfolder in the OrgPublisher installation folder.

HTML programming is accomplished with a file called **thinserver.dat**. This file is located in the installation folder of OrgPublisher.

This section includes samples of thin client customizations. Other examples of modifying these files can be found in the [OrgPublisher SDK](#) on the Web site.

Note: Support for this modification type falls outside the norm for Product Support. Our Professional Service Group can work with you on a consulting basis.

Customization Example 1

This example changes the thin client login window gray background color to white.

Change the BACKGROUND-COLOR parameter value from #E9E9D8 to #FFFFFF: (highlighted below)

```
<STYLE TYPE="text/css" MEDIA=screen>
<!--
BODY
{
    MARGIN: 0px;
    MARGIN-LEFT: 0px;
    MARGIN-RIGHT: 0px;
    FONT: 10px Arial, Helvetica, sans-serif;
    COLOR: #000000;
    BACKGROUND-COLOR: #FFFFFF;
}
```

Customization Example 2

This example hides the group names from the Styles bar. Remove the line of text below from the **thinserver.dat** file.

```
<td class="groupoff" nowrap valign="middle"><a href="JavaScript:
toggleGroups () ;" id="groupname"
class="groupff">&nbsp;%GROUP_BUTTON_LABEL%%CURRENT_GROUP_NAME%&nb
sp; ; &nbsp;</a></td>
```

To test any changes to thinserver.dat, you must:

1. Edit and save the thinserver.dat file.
2. Close and reopen OrgPublisher.
3. Publish your file and test.
4. Repeat steps 1-3, as needed.

Thin Client URL Parameters

The following parameters can be added to the URL to control a Thin Client chart.

OrgPublisher Thin Client charts are dynamic HTML versions of org charts. You can customize the HTML pages to more closely match the look and feel of your Web site, and determine what information is displayed, by linking to your custom style sheet.

Authentication – It is possible, although not secure, to pass a user name and password in the URL in order to authenticate to a chart that has been published using chart authentication.

USERNAME = the user name with which to authenticate

PASSWORD = the password for the user name

Example:

```
http://computername/ECharts/Orgchart.dll?Frame&USERNAME=lfranklin
&PASSWORD=password
```

Another possibility is to specify the same field as both the username and the password fields. That way, you only have to control one field. This method is a convenient way to jump into a Thin Client chart programmatically from a lookup page, or, possibly, from another chart. This publishing definition parameter page is shown below.

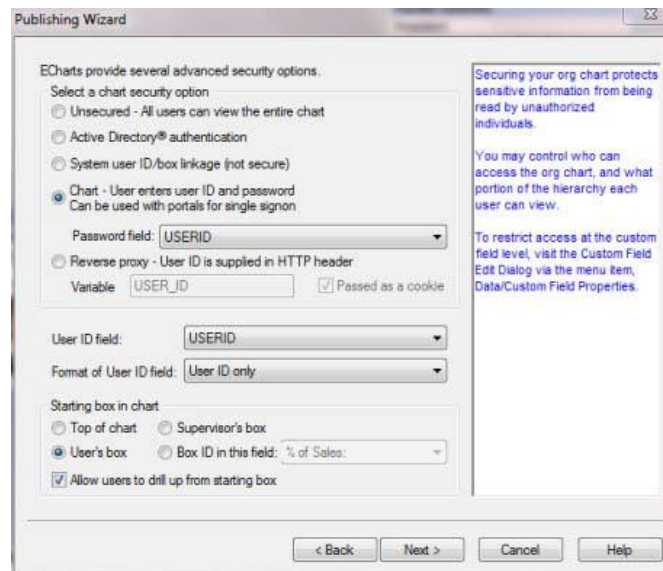


Figure 3.

This is a sample URL for using this method.

```
http://computername/ECharts/Orgchart.dll?Frame&USERNAME=lfranllin
&PASSWORD=lfranklin
```

Other parameters include:

STYLE = Style selected. Number **0** = the default style (the style it was published with). Styles are numbered **1** and up, as they appear in the style list.

Example:

```
http://computername/ECharts/Management_Thin.dll?Frame&STYLE=1
```

DRILL = Turns drill buttons on or off. **1** = on, **0** = off, **2** = default

Example:

```
http://computername/ECharts/Management_Thin.dll?Frame&DRILL=1
```

BOX_SELECTED = selects the specified box ID. If the ID doesn't exist, the box at the top of the chart is shown.

Example:

```
http://computername/ECharts/Management_Thin.dll?Frame&BOX_SELECTED=5
```

Levels = Sets the number of levels to be displayed in the chart. Number **2** or greater. **0** = default.

Example:

```
http://computername/ECharts/Management_Thin.dll?Frame&LEVELS=2
```

TOP = Box ID. Determines the top box of the chart – useful for unsecured charts.

Example:

```
http://computername/ECharts/Management_Thin.dll?Frame&TOP=3
```

EChart Rich Client/Thin Client Feature Comparison

The Thin Client option is a form of EChart, however, there are some differences between the rich and thin mode in a published chart. See the *OrgPublisher EChart Rich and Thin Client Comparison*.